Experimental investigation of a...

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resonator(s), of the injection voltage and of the h-f power supplied to the resonator(s). Results: The prebuncher exerts a considerable effect on the operation of the accelerator. The experimental results agree with the theory. With $\phi=20-40^\circ$, the electron bunches emerging from the prebuncher coincide in the accelerator at the equilibrium phase: this yields minimum width of spectrum and maximum current. At a phase of the phase scanner of $\phi=-(80-120^\circ)$, the beam enters the accelerator in the phase range of electromagnetic traveling waves rendering bad bunching conditions. A prebuncher, even with one resonator, raises I to 3I, and reduces ΔU to $\Delta U/3-\Delta U/4$. Use of two resonators raises the current by several times, but operation conditions become more sensitive and their proper choice is complicated. There are 6 figures.

SUBMITTED: May 27, 1961

Card 2/2

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S/142/62/005/001/011/012 E192/E382

9,3130

AUTHOR:

Yakovlev, D.A.

TITLE:

The optimum Chebyshev linearisation of electron

velocity as a function of voltage

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy,

Radiotekhnika, v. 5, no. 1, 1962, 131 - 134

TEXT: The kinematic theory of velocity-modulated electron devices is based on the formula:

$$v = v_o \left(1 + \frac{U_1}{2U_o} M \sin \omega t\right)$$
 (1)

is the electron velocity at the output of the high-frequency modulating gap,

is the mean electron velocity,

is the voltage amplitude across the modulating gap of the resonator,

U is the accelerating voltage, Card $1/4^{\circ}$

S/142/62/005/001/011/012 E192/E382

The optimum Chebyshev ...

M is the electron-interaction coefficient, ω is the angular frequency of the modulating signal and

Eq. (1) is valid for small values of the modulation index

 $\alpha = U_1/U_0$ and at comparatively large α it results in significant errors in view of the fact that the electron velocity:

(3)

is a nonlinear function of the accelerating voltage and the fact that Eq. (1) takes into account only the dependence of v on U at the point U . In Eq. (3) c is the velocity of light, is its mass. A is the charge of an electron and m_0 greater accuracy in Eq. (1) can be achieved if v = f(U)Card 2/4

The optimum Chebyshev

S/142/62/005/001/011/012 E192/E382

an interval from $U_0 - U_1$ to $U_0 + U_1$ is approximated by a straight line in the Chebyshev manner (see Fig. 1). The maximum deviation of v = f(U) from the straight line is $\pm \delta$ It is shown that this approximation leads to the following velocity-modulation formula:

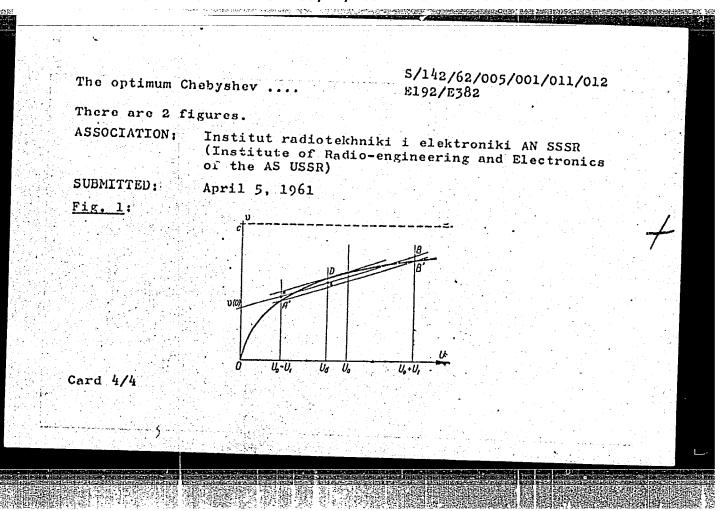
$$v_{np} = v_{onp} \left(1 + \frac{U_1 K(U_o, U_1) \cdot M}{K(U_o, U_1) \cdot U_o + v(0)} \sin \omega t \right)$$
 (19)

where K(Uo, U1) is defined by:

$$\frac{d v(U)}{dU} \bigg|_{U=U\delta} = K(U_0, U_1)$$
 (12)

and v(0) is indicated in Fig. 1. Eq. (19) gives higher accuracy even in the case of relativistic electron beams than Eq. (1) for non-relativistic electrons.

Card 3/4



ALEKHIN, S.V., dokter tekhn. nauk, prof.; GROKHOL'SKIY, N.F., kand. tekhn. nauk, dots.; ZOLOTNIKOV, I.M., kand. tekhn. nauk, dots.; KOCHUGOV, P.I., kand. tekhn. nauk, dots.; MALYSHEV, G.N., kand. tekhn. nauk, prof.; KHLEENIKOV, M.S., kand. tekhn. nauk, retsenzent; PISAHEV, N.G., kand. tekhn. nauk, dots., retsenzent; ODING, G.A., kand. tekhn. nauk, dots., retsenzent; KURENKOV, I.I., kand. tekhn. nauk, retsenzent PROKOF!YEVA, Ye.I., inzh., retsenzent; YAKOVLEV, D.A., inzh., retsenzent; SERGEYEVA, I.N., red.

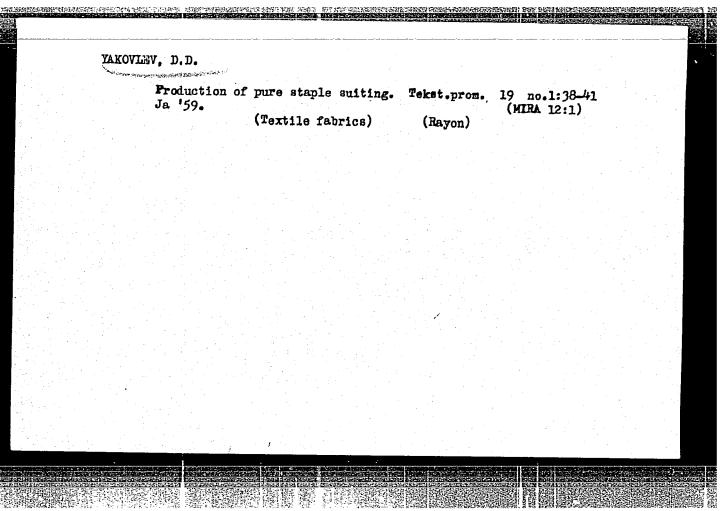
[Design of technological processes for the manufacture of billets and parts for the rolling stock of railroads; methodological manual on the technological aspects of diploma projects prepared in institutions of higher learning of railroad transportation] Proektirovanie tekhnologicheskikh protessov proizvodstva zagotovok i detalei podvizhnogo sestava zheleznykh dorog; uchebno-metodicheskoe posobie po tekhnologicheskoi chasti diplomnogo proektirovaniia v vuzakh zheleznodorozhnogo transporta. Moskva, Vses. zaochnyi in-t inzhenerov zhel-dor. transporta. Pt.1. 1964. 202 p. (MIRA 18:3)

BABITSKIY, B.L.; VINITSKIY, L.Ye.; DROZDOVSKIY, V.F.; DYUBKO, L.D.; KAPLUNOV, Ya.N.; MELENT'YEVA, Z.G.; SHOKHIN, I.A.; Prinimali uchastiye: ZHIL'TSOVA, A.A.; LEVIT, R.G.; YAKOVLEV, D.A.

Effect of filling reclaimed rubber on the dielectrical properties of the reclaimed product. Kauch. i rez. 24 no.5:22-25 My '65.

(MIRA 18:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zheleznodorozhnogo transporta i Nauchno-issledovatel'skiy institut shinnoy promyshlennosti.



YAKOVLEV, Dmitriy Filippovich; KUZNETSKIY, Gennadiy Ivanovic;

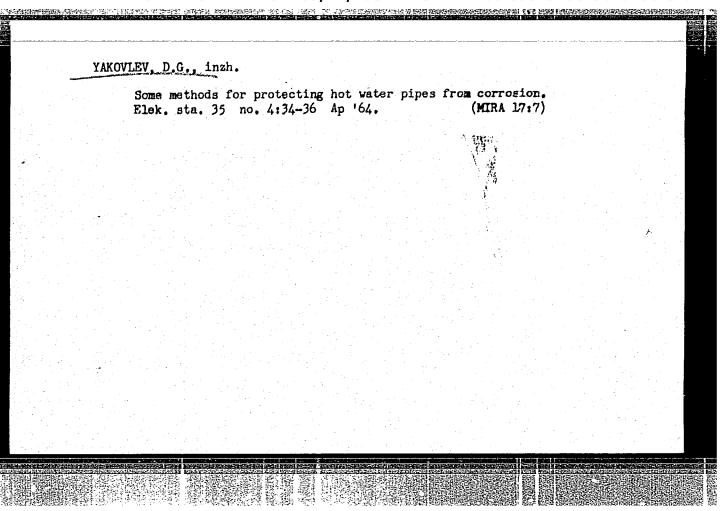
BESHKIN, Grigoriy Mikhaylovich; FRENKEL', M.Z., nauchnyy
red.; SHAKHOVA, L.I., red.; NESYYSLOVA, L.M., tekhn.red.

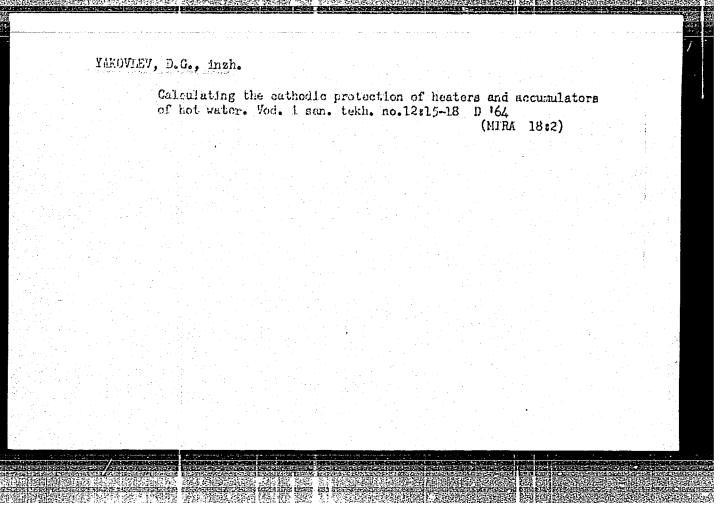
[Training of electricians for work on high-voltage power transmission lines and substations]Podgotovka elektromonterov vysokovol'tnykh linii peredachi i podstantsii. Moskva, Proftekhizdat, 1961. 90 p. (MIRA 15:10) (Electricians-Education and training)

YAKOVLEY, Dmitriy Georgiyevich; NUDEL'MAN, Ol'ga Emmanuilovna;
KCMAROV, V.F., kand, tekhn. nauk, retsenzent; BALANDIN,
A.F., red.izd-va; SOKOLOVA, T.F., tekhn. red.

[Readjusted automatic lines of modernized multiple-purpose
machine tools for the manufacture of taps] Perenalazhivaemye avtomaticheskie linii iz modernizirovannykh universal'nykh stankov dlia izgotovleniia metchikov. Moskva,
Mashqiz, 1962. 226 p. (MIRA 15:3)

(Assembly line methods) (Automation)





APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001961910013-0"

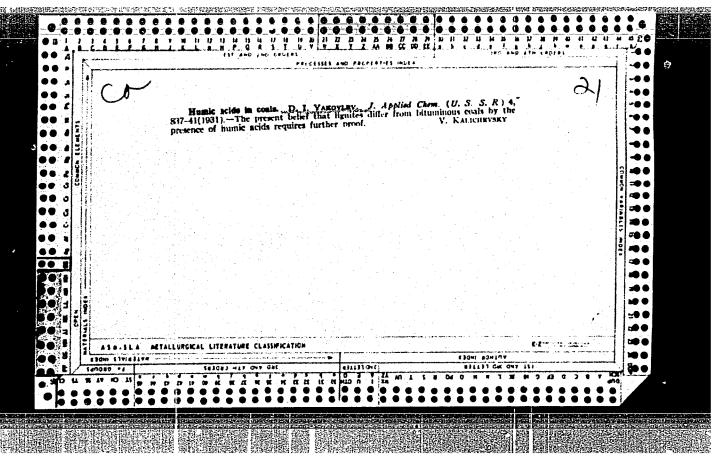
YANSHIN, A.L.; PETRUSHEVSKIY, B.A.; ALEKSANDROVA, M.I.; BORSUK, B.I.; VOLIN, A.V.; ZUBKOVSKAYA, I.M.; YAKOVLEY, D.I.; BER, A.G.; BOROVIKOV, L.I.; BOYTSOVA, Y.P.; OVECHELL, N.K.; BESPALOV, Y.F.; SHLYGIN, Ye.D.; SPERANSKIY, B.F.; KHAKHLOV, V.A.; RAGOZIH, L.A.; DITMAR, V.G.; GORSKIY, I.I., red.; KASSIN, N.G., red.; FOMICHEV, V.D., red.; DZEVANOVSKIY, Yu.K., red.; CHIKHACHEV, P.K., red.; KOMISHAN; I.S., red.; DASHKOVA, A.D., red.; VODOLAGINA, S., tekhn. red.; VDOVINA, M.P., tekhn. red. [Geological map of the U.S.S.R., scale 1:1,000,000] Geologiche skaia karta SSSR, masshtab 1:1,000,000. Explanatory notes to accompany sheet;] Ob"iasnitel naia zapiska k listu. ____ L-40 [Emba] (Emba). 1949. 56 p. L-41 [Kzyl-Orda] (Kzyl-Orda). 1946. 20 p. L_42 [Karsakpay] (Karsakpai). 1949. 42 p. M-41 [Turgay] (Turgai). 1948. 28 p. M-43 [Karaganda] (Karaganda). 1947. 37 р. N-42 [Petropavlovsk] (Petropavlovsk) 1947. 27 р. N-44 [Novosibirsk] (Novosibirsk) 1948. 33 р. 0-45 [Tomsk] (Tomsk). 1949. 26 p. ____ 0-49 [Kirensk] (Kirensk). 1947. 40 p. Moskva, Gos. izd-vo geol. lit-ry. (MIRA 11:18) U.S.S.R.) Ministerstvo geologii. 1. Russia (1923-(Geology-Maps)

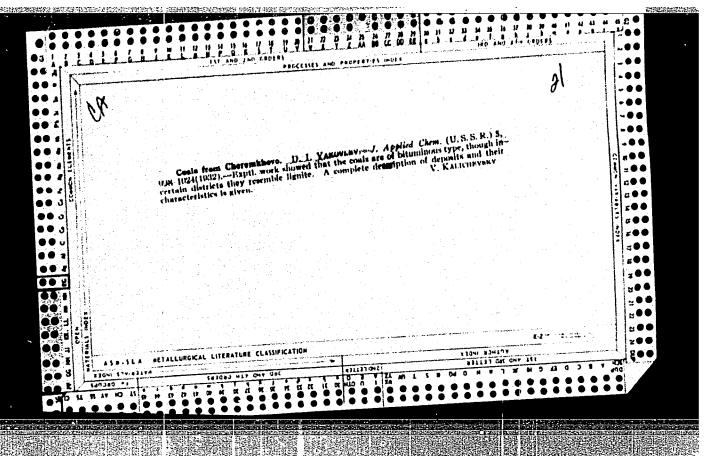
BATISHCHEV-TARASOV, Stepan Dmitriyevich; YAKOVLEV, D.I., prof., doktor geologo-mineralog.nauk, nauchnyy red.; RZHEVUSKATA, D.M., red.; ATROSHCHENKO, L.Ye., tekhn.red.

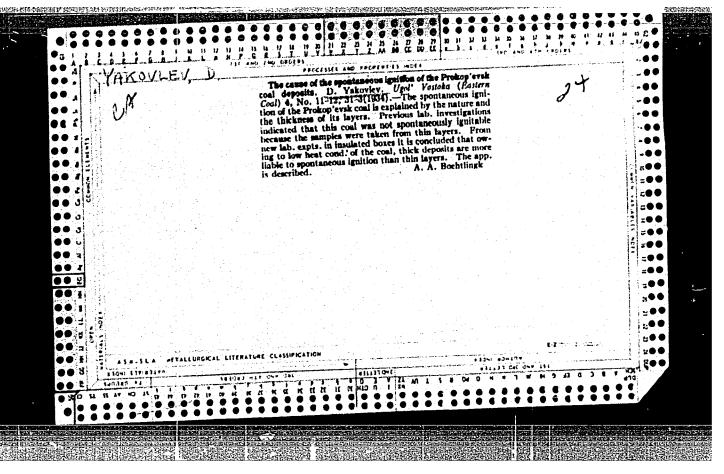
[Greater Turgay; useful minerals of the Turgay depression and prospects for their use in industry] Bol'shoi Turgai; poleznye iskopaemye Turgaiskogo progiba i perspektivy ikh promyshlennogo ispol'sovaniia. Moskva, Izd-vo "Znenie," 1959. 31 p. (Vsesoiuznoe obshchestvo po rasprostraneniiu politicheskikh i nauchnykh znanii. Ser. 9, no.16) (MIRA 12:8)

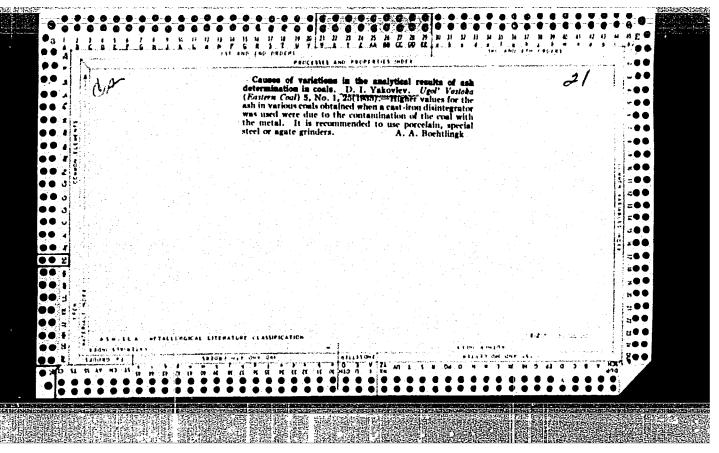
1. Chlen-korrespondent Akademii nauk Kazakhskoy SAR. (for Batishchev-Tarasov).

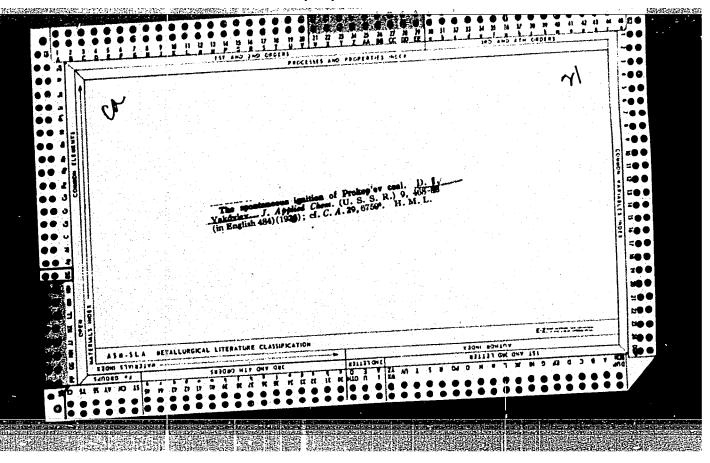
(Turgey Gates--Mines and mineral resources)

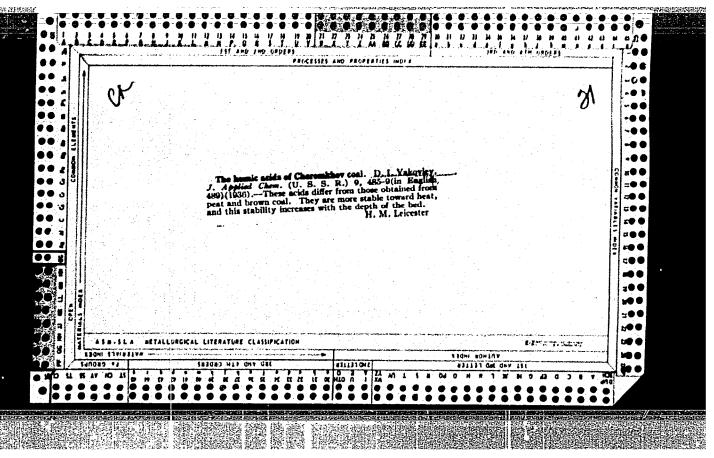


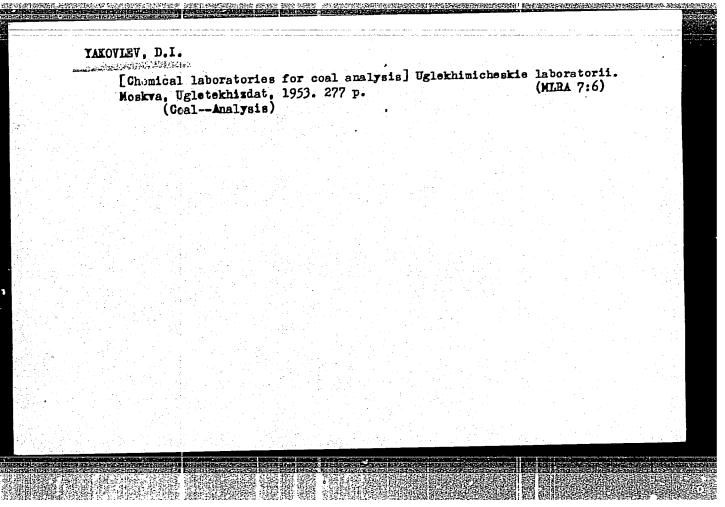






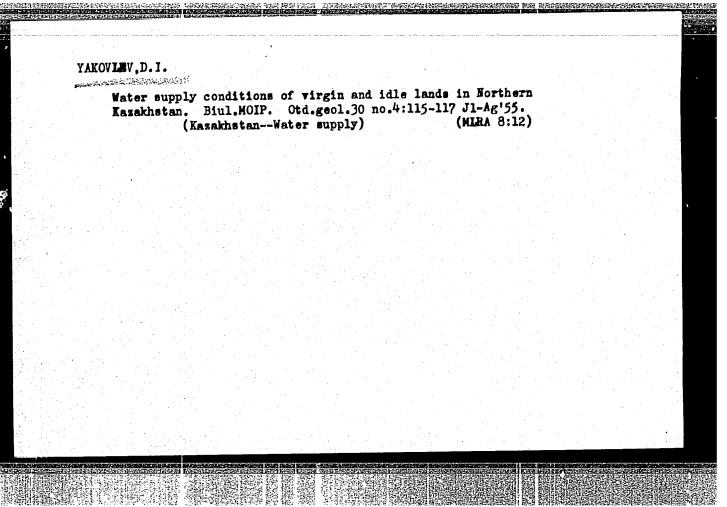






YAK Ó L	EV, D. I.	
1	YAKOVLEV, D.I.	
	Ways of 1 and mines	improving the work of chemical laboratories of coal trusts Nauch.rab. VUGI no.9:147-162 \$53. (MLRA 7:7)
	1. Khimik	(Coal-Analysis) (Chemical engineering laboratories)

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	USSR. V2859. SHORTCOMMES IN HETHOOM OF MARKETING OUT SHOLTENED OF MARKETING OUT SHOLTENED OF MARKETING OUT SHOLTENED OF MARKETING OUT SHOLTENED OUT SHOLTEN
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YAKOV	TEV D.I.	
	New stockpile shapes preventing coal and shale from spontaneous ignition. Ugol' 32 no.6:39-40 Je '57. (MIRA 10:7) (Coal mines and miningSafety measures) (Combustion, Spontaneous)	

YAKOVLEY, Dmitriy Ignat'yevich; GARBER, T.M., otvetstvonnyy red.;

NADEINSKAYA, A.A., tekhn.red.; SABITOV, A., tekhn.red.

[Chemical laboratories for coal analysis] Uglekhimicheskie laboratorii. Izd. 2-ce, perer. i dop. Moskva, Ugletekhizdet, 1957. 375 p. (Coal analysis)

(Goal analysis)

(Ghemical engineering laboratories)

(MIRA 11:2)

OSIFOV, Sergey Ivanovich, inzh.; MIRONOV, Konstantin Aleksandrovich, inzh.;
ROMADINA, Irina Vladimirovna, vrach; YAKOVLEV, D.V., inzh., red.;
BOBROVA, Ye.N., tekhn.red.

[Safety engineering mamual for electric railroad crews] Pamiatka
po tekhnike bezopasnosti lokomotivnym brigadam elektropodvizhnogo
sostava. Moskva, Gos. transp. zhel-dor. izd-vo, 1958. 199 p.

(MIRA 11:12)

(Electric railroads--Safety measures)

PETROV, Mikhail Petrovich; GERASEYEV, Aleksandr Yevdokimovich; KAZACHKIN, Valentin Ivanovich; YEZERSKIY, Vyacheslav Fedorovich; DASHKEVICH, Aleksandr Bronislavovich; YAKOVLEV, D.V., inzh., red.; BOBROVA, Ye.N., tekhn.red.

[Locating and eliminating faults in the N8 electric locomotives]
Obnaruzhenie i ustranenie neispravnostei na elektrovoze N8.
Moskva, Gos.transp.zhel.dor.izd-vo, 1959. 170 p.

(MIRA 13:7)

paramenencemban da diamenangkapangkapan

(Electric locomotives)

GOLYNCHIK, Leonid Stepanovich; DMITRIYEV, Stepan Ivanovich; JUNENKOV,
Vladimir Leonidovich; LUNKIN, Dmitriy Mikhaylovich; YAKOVLEV,
D.V., insh., red.; BOBROVA, Ye.F., tekhn.red.

[Operation and repair or electric machinery on electric rolling stock] Raspluatatsiia i remont elektricheskith mashin elektropedvizhmogo sustava. Moskva, Gos.transp.shel-dor.ind-vo, 1959.

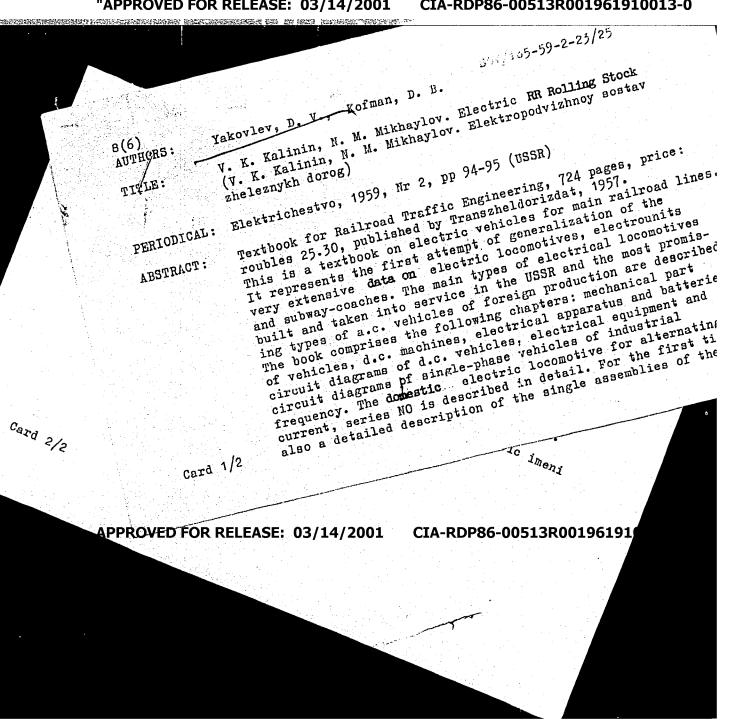
223 p. (MIRA 12:6)

(Electric locomotives) (Electric machinery)

VITEVSKIY, Ivon Vasil'yevich; CHERNYAVSKIY, Simon Nimonovich; YAKOVLEY,
D.V., inzh., red.; KHITROV, P.A., tekhn.red.

[Donign and repair of direct current electric locomotivema]
Untraintvo i remont elektrovezov pontoinnogo toka. Moskva,
Gos.tranap.zhel-dor.izd-vo, 1959. 49h p. (MIRA 12:12)

(Electric locomotivem)



3/4/105-59-2-23/25

8(6) AUTHORS: Yakovlev, D. V. Kofman, D. B.

TITLE:

V. K. Kalinin, N. M. Mikhaylov. Electric RR Rolling Stock (V. K. Kalinin, N. M. Mikhaylov. Elektropodvizhnoy sostav zheleznykh dorog)

zheleznykh doro

PERIODICAL:

Elektrichestvo, 1959, Nr 2, pp 94-95 (USSR)

ABSTRACT:

Textbook for Railroad Traffic Engineering, 724 pages, price: roubles 25.30, published by Transzheldorizdat, 1957. This is a textbook on electric vehicles for main railroad lines. It represents the first attempt of generalization of the very extensive data on electric locomotives, electrounits and subway-coaches. The main types of electrical locomotives and subway-coaches. The main types of electrical locomotives built and taken into service in the USSR and the most promisbuilt and taken into service in the USSR and the most promising types of a.c. vehicles of foreign production are described. The book comprises the following chapters: mechanical part of vehicles, d.c. machines, electrical apparatus and batteries, of vehicles, d.c. machines, electrical equipment and circuit diagrams of d.c. vehicles, electrical equipment and circuit diagrams pf single-phase vehicles of industrial frequency. The domestic electric locomotive for alternating frequency. The domestic electric locomotive for the first time current, series NO is described in detail. For the first time also a detailed description of the single assemblies of the

Card 1/2

y. K. Kalinin, N. M. Mikhaylov. Electric Railroad Vehicles

electric locomotive ChS 1 and a few data of the electric locomotive N 60 are set forth. Finally it is pointed towards some errors in the book.

ASSOCIATION: Moskovskiy tekhnikum zheleznodorozhnogo transporta im. Dzerzhinskogo (Moscow Folytechnic Institute for Railroad Traffic imeni Dzerzhinskiy)

Card 2/2

KOCHURAYEV, Lev Dmitriyevich; YAKOVLEV, D.V., inzh., red.; KHITROV, A.P., tekhn.red.

[Group contactors for d.c.electric locomotives] Gruppovye kontaktory elektrovozov postoiannogo toka. Moskva, Vses.izdatel'skopoligr.ob*edinenie M-va putei soobshcheniia, 1960. 25 p.

(MIRA 13:6)

(Electric locomotives) (Electric contactors)

PODCL'SKIY, Leonid Romanovich; PAPCHENKO, Nikolay Ivanovich; SLAVIN,
II'ya L'vovich; YAKOVIEV, D.V., inzh., red.; KHITROV, P.A.,
tekhn.red.

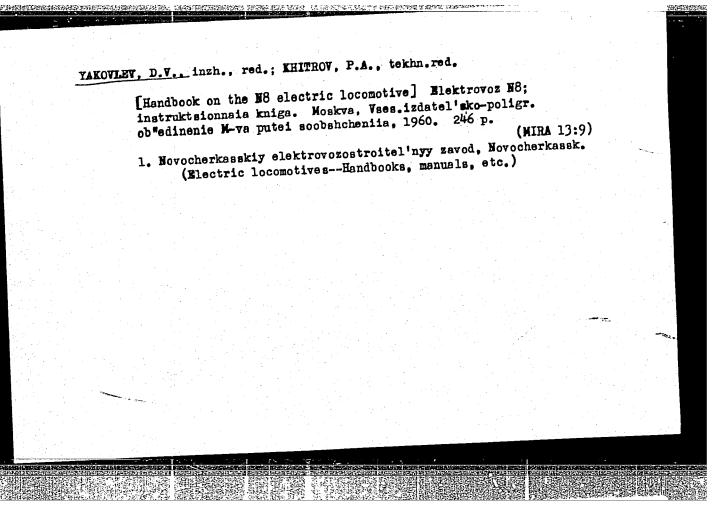
[Electric networks of the VL23 electric locomotive] Elektricheskie skhemy elektrovoza VL23. Moskva, Vses, izdatel'sko-poligr.
oh"edinanie M-va putei soobshcheniia, 1960. 147 p.
(Electric locomotives) (MIRA 13:11)

YAKOVLEV, D.V., inzh., red.; KHITROV, P.A., tekhn.red.

[TL23 electric locomotive without regeneration; information manual] Elektrovoz TL23 bez rekuperataii; instruktaionnoia kniga. Moskva, Vaes.izdatel'sko-poligr.ob*edinenie M-va putei kniga. Moskva, 1960. 228 p.

1. Novocherkassiy elektrovozostroitel'nyy zavod.

(Klectric locomotives)



GUTKIN, Lev Vladimirovich; Nikanorov, Viktor Aleksandrovich; KOFMAN,
David Borisovich; YAKOVLEV, D.V., inzh., red.; BOBROVA, Ye.N.,
tekhn.red.

[Repair of electric trains; electrical section] Remont elektropodvizhnogo sostava; elektricheskaia chast'. Moskva, Vass.
izdatel'sko-poligr.ob"edinenie M-va putei soobshcheniia, 1960.
(MIRA 13:11)

331 p.
(MIectric locomotives--Maintenance and repair)

KIRBYAT'YEV, Lev Nikolayevich; YAKOVLEV, D.V., inzh., red.; MEDVEDEVA,
M.A., tekhn. red.

[Reversers and switchgears of electric locomotives] Reversory i
perekliuchateli elektrovozov. Moskva, Vses. izdatel'sko-poligr.
ob*edinenie M-va putei soobshcheniia, 1961. 27 p.
(MIRA 14:8)

(Electric locomotives--Electric equipment)

DYMAN, Zinoviy L'vovich; RUSETSKIY, A.A., ingh., retgenzent; YAKOVLEV,
D.V., ingh., red.; MEDVEDEVA, M.A., tekhn. red.

[Individual contactors on d.c. powered electric locomotives]
Individual mys kontaktory elektrovozov postotannogo toka. Moindividual sko-poligr. ob edinenie M-va putei soobshcheskva, Vses. izdatel sko-poligr. ob edinenie M-va putei soobshcheniia, 1961. 35 p.

(Electric locomotives)

VISIN, Nikolay Grigor'yevich; SKIYAROV, Yu.N., inzh., retsenzent; YAKOVLEV,
_D.V., inzh.; red.; KHITROVA, N.A., tekhm. red.

[Synchronous starting of S^T and S³ electric sections; practice of the workers of the Bezymyanka repair shop of the Kuybyshev Railroad] Sinkhronnyi pusk elektrosektsil S^T i S^T; opyt raboty kollektiva elektrodepo Bezymianka Kuibyshevskof dorogi. Moskva, Vses. izdatel'sko-poligr. ob*edinenie M-va putei soobshohemiia, 1961.

[A2 p. (MIRA 14:7)

[Railroad motorcars) (Bezymyanka--Railroads--Repair shops)

TUSHKANOV, Boris Andreyevich; BOVE, Ye.G., kand. tekhn. nauk, retsenzent; YAKOVLEV, D.V., inzh., red.; KHITROV, P.A., tekhn. red.

[Electric networks of the N8 electric locomotive] Elektricheskie skhemy elektrovozov N8. Moskva, Vses izdatel'sko-poligr. ob#edine-nie M-va putei soobshcheniia, 1961. 65 p. (MIRA 14:10) (Electric locomotives)

SEMENOV, Gennadiy Alekseyevich, inzh.; YERSHOV, Yevgeniy Fedorovich, inzh.; KOZLOV, Vitaliy Ivanovich, mashinist; NIKITIN, Geniy Nikolayevich, inzh.; KRYLOV, S.S., inzh., retsenzent; YAKOVLEV, D.V., inzh., red.; OSIPOV, S.I., inzh., red.; VOROTNIKOVA, L.F., tekhn. red.

[Detecting and eliminating defects in the electric circuits of a.c. electric locomotives] Obnaruzhenie i ustranenie neispravnostei v elektricheskikh tsepiakh elektrovozov peremennogo toka [By] G.A. Semenov i dr. Moskva, Vses. izdatel sko-poligr. obnedinenie M-va putei soobshcheniia, 1961. 127 p. (MIRA 15:3)

(Electric locomotives -- Maintenance and repair)

YAKOVLEV, D.V., inzh., red.; MEDVEDEVA, M.A., tekhn. red.

[N60 electric locomotive; book of instructions] Elektrovoz N60; instruktsionnaia kniga. Moskva, Vses.izdatel'sko-poligr.obsedinenies M-va putei soobshcheniia, 1961. 221 p. (MIRA 14:12)

1. Novocherkasskiy elektrovozostroitel'nyy zavod. (Electric locomotives)

YAKOVLEV, D.V., inzh., red.; BOBROVA, Ye.N., tekhm. red.

[VI22^m electic locometive; manual] Elektrovoz VI22^m; instruktsionnia kniga. Moskva, Vsss. izdatel'sko-poligr. ob*edimente M-va putei soobshchenita, 1961. 239 p.

1. Russia (1923- U.S.S.R.) Glavnoye upravleniye lokometivnogo khozyyaystva.

(Electric locometives)

MARCHENKO, Yuriy Valentinovich; NIKITIN, Goniy Nikolayovich;
BYSTRITSKIY, Kh.Ya., inzh., retsenzent; YAKOVLEV, D.V., inzh.,
red.; RAKOV, V.A., inzh., red.; USENKO, L.A., tekhm. red.

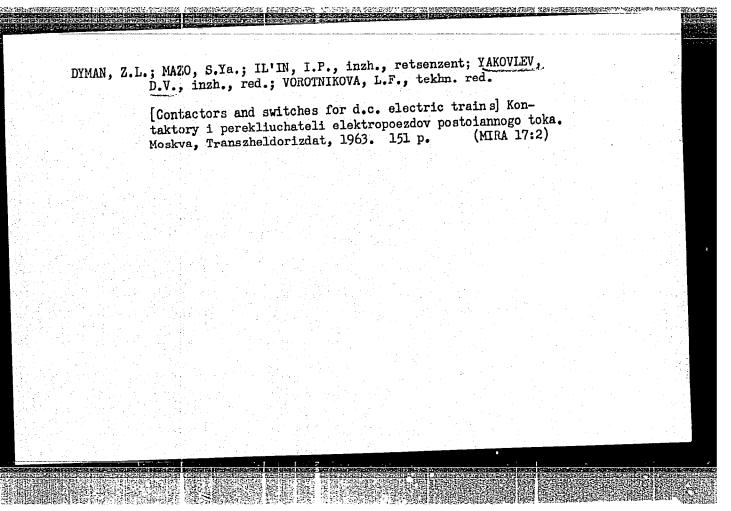
[Maintenance and operation of electric a.c. locomotives] Obsluzhivanie i ekspluatatsiia elektrovozov peremennogo toka.
Moskva, Vses.izdatel'sko-poligr. ob"edinenie M-va putei soobshoheniia, 1961. 234 p.

(Electric locomotives)

YAKOVLEV, Dmitriy Vasil'yevich; RAKOV, V.A., inzh., retsenzent; LIEMAN,
G.M., inzh., retsenzent; KHRAKOVSKIY, Ye.M., inzh., red.;
MEDVEDEVA, M.A., tekhn. red.

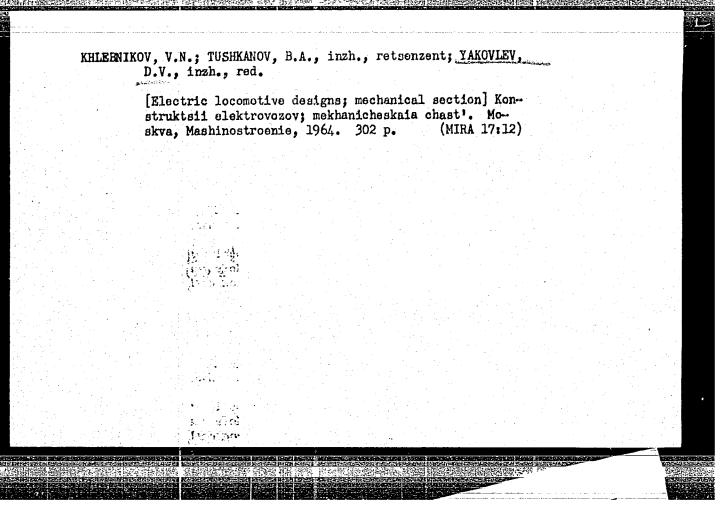
[[Operation of d.c. electric locomotives and their maintenance]
Upravlenie elektrovozami postoiannogo toka i obsluzhivanie ikh.
Moskva, Vses.izdatel'sko-poligr. ob*edinenie M-va putei soobshcheniia, 1961. 269 p.

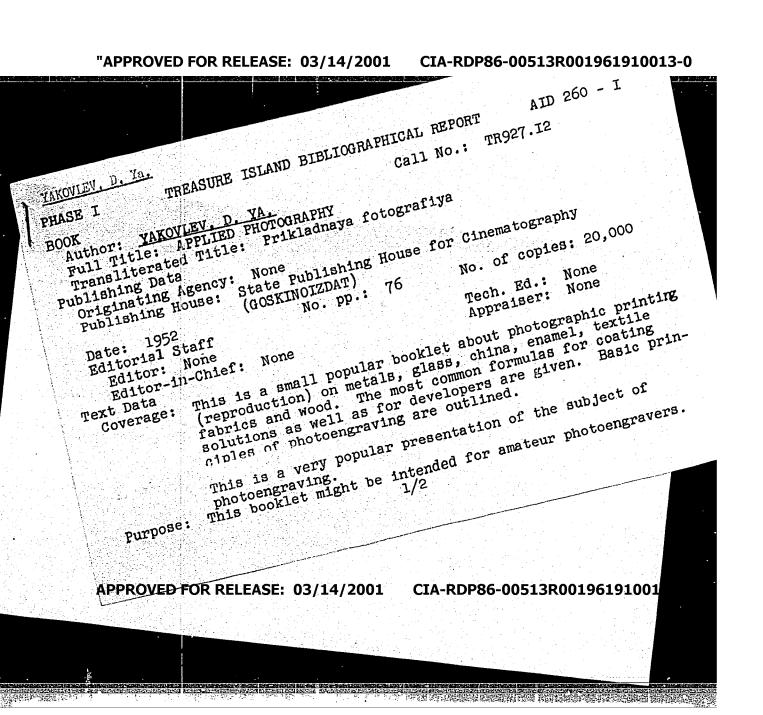
(Electric locomotives)



VOROZHEYKIN, Dmitriy Ivanovich, inzh.; LIBMAN, Grigoriy Markovich; LEVIN, Boris Mordukhovich; BEKHTEREV, Ivan Andreyevich; CHERNYSHEVICH, Fedor Ignat'yevich; BOVE, Ye.G., kand. tekhn. nauk, retsenzent; TISHCHENKO, A.I., inzh., retsenzent; YAKOVLEV, D.V., inzh., red.; BOBROVA, Ye.N., tekhn. red.

[Operation and maintenance of electric d.c. locomotives] Ekspluatatsiia i obsluzhivanie elektrovozov postoiannogo toka. Moskva, Vses. izdatel'skopoligr. obmedinenie M-va putei soobshcheniia, 1961. 341 p. (MIRA 14:8) (Electric locomotives)





6.3000 (1024, 1035, 1141)

87009

S/051/61/010/001/010/017

AUTHORS:

Yakovlev, VE.A. and Gerasimov, F.M.

TITLE:

be mere is

An Experimental Study of the Spectral Distribution of the Intensity of Polarized Light Diffracted by a Grating

PERIODICAL: Optika i spektroskopiya, 1961, Vol.10, No.1, pp.104-112

The authors studied the reflection of monochromatic $(\lambda = 0.4 \text{ to } 1.7 \,\mu)$ polarized light by diffraction gratings ruled on thin metal layers (line profiles were stepped). The reflection coefficients were measured, using apparatus shown schematically in Fig.1. A diffraction grating 7 was illuminated by a parallel beam of linearly polarized light from a grating monochromator (3 and 4 are, respectively, the exit slit of the monochromator and a lens). The diffracted light was focused by means of a lens 8 onto a photocell 9. The reflection coefficients were found as the ratios of the intensities of a beam diffracted by a grating and a beam reflected by a plane aluminized mirror placed in the beam instead of the diffraction grating. An incandescent lamp 1 was used as the source of light. A Rochon prism 5 was used to polarize the light. The photocurrent of Card 1/3

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S/051/61/010/001/010/017 E201/E491

An Experimental Study of the Spectral Distribution of the Intensity of Polarized Light Diffracted by a Grating

the cell 9 was measured with a mirror galvanometer In all. 40 plane gratings, with 200, 300, 600 and 1200 lines/mm, were studied. The spectral distributions of the diffracted light (Fig. 2, 3 and 5) were displaced relative to one another when (a) the electric vector of incident light was parallel to the grating lines and when (b) electric vector was normal to the grating lines. The distribution for case (a) was always displaced towards shorter wavelengths with respect to the distribution for case (b). The displacement was proportional to the wavelength and inversely proportional to the grating constant (Fig. 4). The displacement produced a change in the polarization of the diffracted light (the apparatus used for measurements of polarization is shown in Fig. 7 and the results are plotted against wavelength in Fig. 6). Replica gratings made of polymethyl methacrylate or gelatine did not exhibit this displacement which was characteristic of metals Card 2/3

87009

S/051/61/010/001/010/017 E201/E491

An Experimental Study of the Spectral Distribution of the Intensity of Polarized Light Diffracted by a Grating

(Fig. 8 and 9). There are 9 figures, 1 table and 4 references: 1 Soviet and 3 non-Soviet (one of which is translated into Russian)

SUBMITTEDo March 21, 1960

Card 3/3

YAKOVLEV, E.A.; GERASIMOV, F.M.

Apropos of C.A.Falmer's remarks. Opt.1 spektr. 13 no.1:106 Jl (MIRA 15:7)

162. (Spectrum analysis)

L 3153-66 EWT(1) IJP(c) ACCESSION NR: AP5016042 UR/0368/65/002/005/0402/0408 535.428 A.; Gersimov. F. M. 44:65 TITLE: Effect of errors in the profile of diffraction grating lines on the distribution of intensity in polarized light SOURCE: Zhurnal prikladnoy spektroskopii, v. 2, no. 5, 1965, 402-408 TOPIC TAGS: diffraction grating, spectral distribution, light polari ABSTRACT: In view of lack of detailed published data on the subject, the authors investigated gratings with 600 lines/mm, whose surfaces displayed visible variations of the reflective properties. In addition, echelettes with 50 lines/mm were investigated, in which there were defects on the reflecting surfaces in which defects were artificially produced on the surfaces by means of cutting longitudinal grooves or steps. The reflection coefficients of 600 lines/mm gratings were measured with apparatus described earlier (Opt. 1 spektr. Card 1/2

WOURDOT ON W	R: AP5016042			/
ettes was mautocollima on the reflin which the thus causin and a distostronger maparticular!	easured with a tion monochronecting faces of electric very a decrease ration of the nifestation of y large dimensions.	he distribution of in an infrared spectrome mator. The results of the grooves affector oscillates perpending the reflection co- intensity distribution of the Wood's anomalisions and a large nubecome more aggravat	show that various t primarily the condicular to the efficient at the on curve, owing the condicular to the efficient at the one curve, owing the condicular to the efficient at the one curve, owing the condicular to the efficient at the efficien	defect componer grooves maximum to the with r milli- f average
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EWI(1)ACC NRI AP5022866 UR/0051/65/019/003/0417/0424 SOURCE CODE: AUTHOR: Yakovlev, E. A. ORG: none TITIE: Calculation of the distribution of intensities by a diffraction grating in polarized light 21 44,55 SOURCE: Optika i spektroskopiya, v. 19, no. 3, 1965, 417-424 TOPIC TAGS: diffraction grating, spectral distribution, light diffraction, light polarization ABSTRACT: The distribution of intensities by echelettes (ramp-profiled gratings) with different parameters of the line profiles was calculated by the method of W. C. Meecham (J. Appl. Phys. v. 27, 361, 1956). The calculations were made for different orders of the spectrum and for two states of polarization (electric vector perpendicular and parallel to lines of the gratings). Typical values of the reflection coefficient, obtained with three orders of the spectrum taken into account, agree in general with the results derived by the formula for the scalar theory of diffraction, except that the half widths of the maxima for the parallel component tend to be somewhat smaller and those for the perpendicular component somewhat larger. The maximum of the coefficient of reflection is smaller for the parallel component than for the perpendicular component by approximately the same factor in all orders. The effects of imaginary orders on the calculated results and the limits of applicability of the 535.421 Card 1/2 UDC:

method are examined. The calculated and experimental results were found to be in satisfactory agreement for gratings with an angle of the order of 120° between the faces of the rulings. The results indicate clearly that the representation of the field by a superposition of plane waves is inadequate for gratings with a ramp profile. This is particularly true when the electric vector is parallel to the grating lines. The limitations of the earlier methods are discussed in brief. Orig. art.							
SUB CODE: 20/	SUBM DATE:	16.Jun64/	ORIG REF:	001/ OT	H REF: 008		
m) rd 2/2							

SOURCE CODE: UR/0368/66/004/005/0454/0455 L 32625-66 ACC NRI AP6015596 Yakovlev, E. A.; Gerasimov, AUTHOR: والمساور ولاق ORG: none Investigation of integral reflectivity of a diffraction grating in polarized TITLE: light SOURCE: Zhurnal prikladnoy spektroskopii, v. 4, no. 5, 1966, 454-455 TOPIC TAGS: reflector diffraction grating, light reflection coefficient, 216HT ABSTRACT: This is a continuation of an earlier study of the distribution of energy in the spectrum of a diffraction grating (Opt. i spektr. v. 19, 417, 1965) where it was observed that the sum of the reflection coefficients in all orders of the spectra differs with the polarization. The present paper reports the results of an experimental check of the previous calculations. The experiment was made with two gratings of 600 lines/mm, cut on aluminum and having lines with step-like profiles. The faces of the steps were at an angle of ~120°, and the face with the smaller slope made an angle of 10° or 23° in the two gratings, respectively. The apparatus used to measure the reflection coefficients, for near-normal incidence, was the same as described by the authors earlier (ZhPS v. 2, 402, 1965 and Opt. i spektr. v. 10, 104, 1961). The measurements were made in the λ/d (grating constant) range 0.35 - 1.8. The results show that for the parallel component the sum is close to 100% in both cases. In the case of the perpendicular component, the sum decreased sharply at wavelengths equal 535.421 UDC: 1/2

L 32625-66

ACC NR: AF6015596

to the grating constant (λ/d) or smaller than this constant by an integer. The total reflection coefficient of the gratings was also measured directly with a spectrophotometer with integrating sphere, so that scattered radiation could also be taken into account. The results were comparable, although they could not be identical because the latter method was limited to visible light. The behavior of the sum of the reflection coefficients, and also its dependence on the depth of the grating line, the wavelength, and the polarization, are similar to those observed for the intensity distribution in the region of the Wood anomaly, thus indicating a connection between the two. Orig. art. has: 1 figure.

SUB CODE: 20/ SUBM DATE: 05Jul65/ ORIG REF: 003/ OTH REF: 002

Card 2/2-0

ACC NR: AP7007061

SOURCE CODE: UR/0368/66/004/004/0339/0341

AUTHOR: Yakovlev, E. A.; Gerasimov, F. M.

ORG: none

TITLE: Nature of the polarizing action of a diffraction grating

SOURCE: Zhurnal prikladnoy spektroskopii, v. 4, no. 4, 1966, 339-341

TOPIC TAGS: light polarization, optics

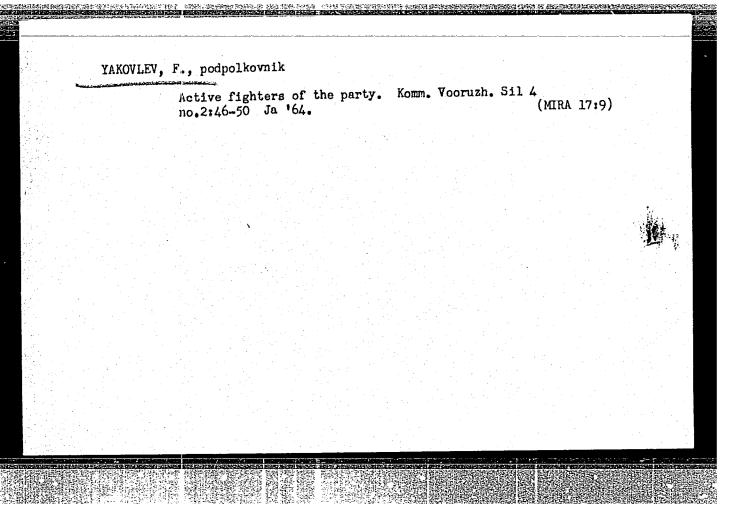
SUB CODE: 20

ABSTRACT: It is shown that the polarizing properties of gratins depend upon the penetrating depth of differently polarized waves into the grooves. It is possible to lower the degree of polarization by appropriate variation of the grating profile. /Based on authors' English Abstract/ Orig. art. has: 2 figures. /JPRS: 35,883/

Card 1/1

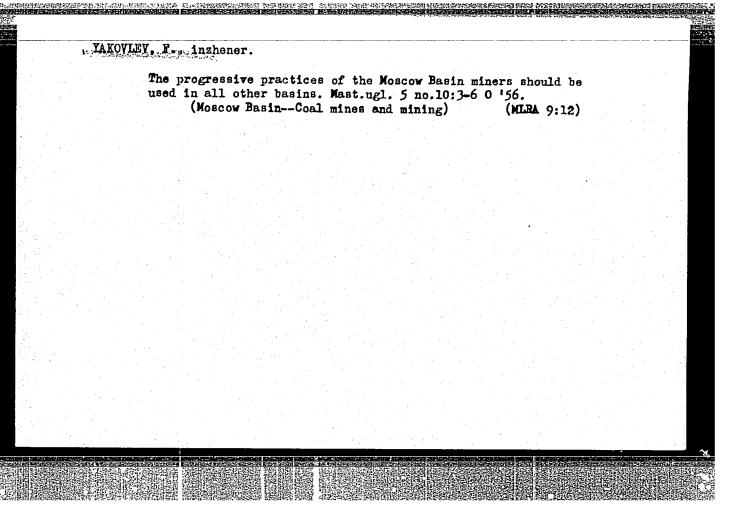
UDC: 535.421

UR/0368/66/005/002/0257/0259 SOURCE CODE: ACC NR: AP7006035 YAKOVLEV, E. A., GERASIMOV, F. M. Dependence of the Polarizing Action of Diffraction Gratings on the Line Profile Parameters" Moscow, Zhurnal Prikladnoy Spoktroskopii (Journal of Applied Spectroscopy), Vol 5, No 2, Aug 66, pp 257-259 Abstract: One of the basic peculiarities of the polarizing action of gratings with stepwise profile is the change in degree of polarization across the spectrum. This is caused by the relative shift in the distribution ourves for the intensity of the two polarization states. Consequently, the authors experimentally investigated the effect of slanted groove sides on the distribution intensity of polarized light. Tests carried out on gratings with 50 lines/mm showed that the slanted sides affect mainly the intensity ratio of the maxima of the two polarizations, while their relative positions change only slightly. Consequently, the polarization of diffracted radiation cannot be substantially altered by changing the angle between the sides of the Orig. art. has: 1 figure, 1 formula, and 1 table. /JPRS: grooves. ORG: none TOPIC TAGS: light polarization, light diffraction SUBM DATE: 05Jul65 / ORIG REF: 005 OTH REF: Card 1/1



YAKOVLEV, F., podpolkovnik

In the party organization of astronauts. Av. 1 kosm. 47 (ekstr. vyr.):
41-47. 0 '64. (MIRA 18:3)



BUY/92-59-1-6/36 14(5) Yakovley, F., Instructor Communist Labor Crews (Brigady kommunisticheskogo truda) PERIODICAL: Neftyanik, 1959, Nr 1, pp 8-9 (USSR) ABSTRACT: The author states that at the meetings held in petroleum enterprises TITLE: of the Tatar Republic in connection with N.S. Khrushchev's report to the Twenty First Congress of the Communist Party of USSR the drillers, assemblers, mechanics and other personnel of oilfields discussed and approved target figures proposed for the development of the Soviet national economy during the 1959 - 1965 period. The personnel of wavlous enterprises, shops and organized tions has pledged to fulfill the annual petroleum production plan sheed of time. Stimulated by socialist competition, the Personnel working under the Bugul meneft' Administration was particularly successful in completing their program of work. As a result of strengths efforts mode by the personnel of various oilffelds, the cost of construction work dropped and a considerable saving was realized. Certain orilling cress have pleaged to overfulfill their assignment every month so as to join the ranks of the communist labor crews. The author indicates those drilling grave and organizations belonging to the Alimet 'yewreftestroy and Tatberneft' trusts which have shown particular real and enthusiesm in accomplishing their job program sheat or date. Card 1/2

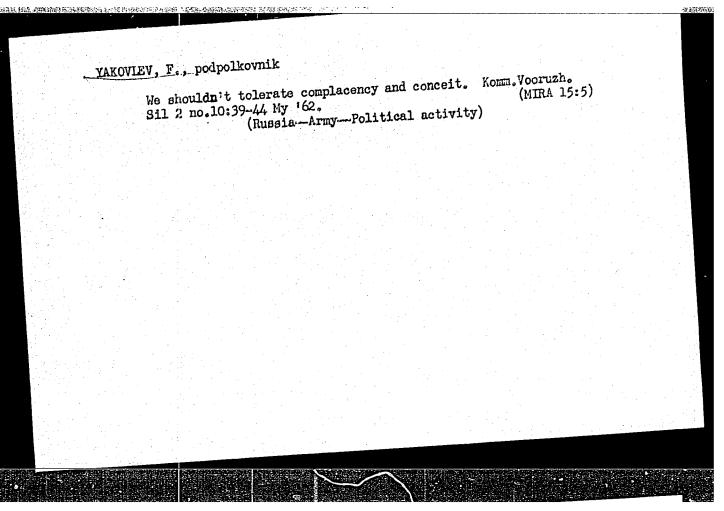
. Communist Labor Crews

sov/92-59-1-6/36

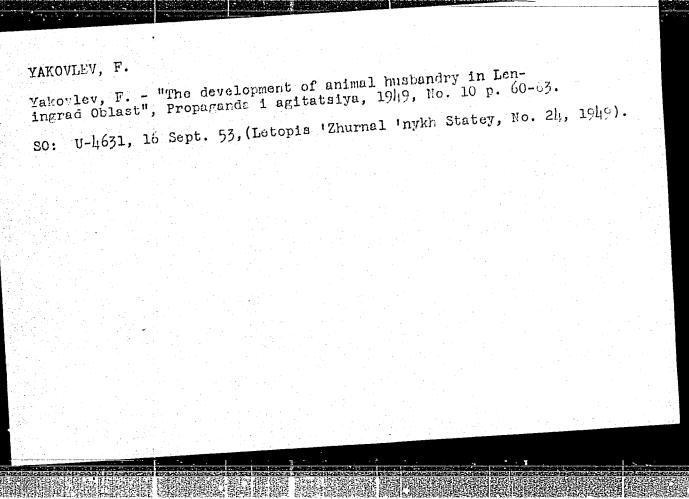
He further indicates those which have undertaken an obligation to break drilling speed records, to save material and to acquire a second skill that will facilitate their work, and improve the organizational setup. A large number of oilfield crews struggle for the right to be called "the communist labor crew". At present the number of such communist labor crews is continuously growing in all enterprises of the Tatar Republic. It is therefore expected that a new peak in the field of oil production will be hit in the

ASSOCIATION: Tatarskiy obkom profsoyuza rabochikh neftyanoy i khimicheskoy promyshlennosti (The Tatar Oblast Committee of the Trade Union of the Petroleum

Card 2/2



APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001961910013-0"



2.	USSR (600) Swine Sov. torg.,	
4• 7•	Swine Work practice of the "Vasileostrovskii" State Farm, Sov. torg., No. 4, 1953.	
	Monthly List of Russian Accessions, Library of Congress, April, 1953, Uncl.	· · ·

YAKOVLEV, F.A.

DOLGOBGRODOV, Ivan Vasil'yevich, zasluzbennyy zootekhnik RSFSR; YAKOVLEV,

Fedor Argent'yevich; KAZANSKIY, M.H., redaktor; VOROB'YEV, F.I.,

redaktor; VOROLAGINA, S.D., tekhnicheskiy redaktor

[Work practice of the Yelizavetine machine-tractor station in
stockbreeding] Opyt raboty Hisavetinskoi MTS po zhivotnovodstvu.

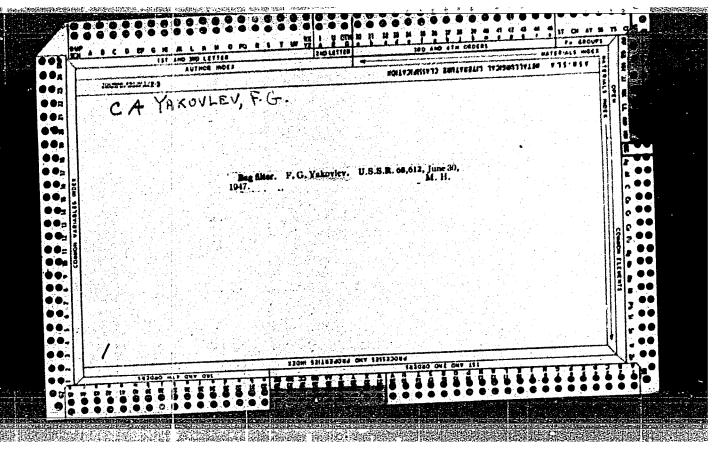
Woskva, Gos. izd-vo selkhoz. lit-ry, 1956. 98 p. (MLRA 9:9)

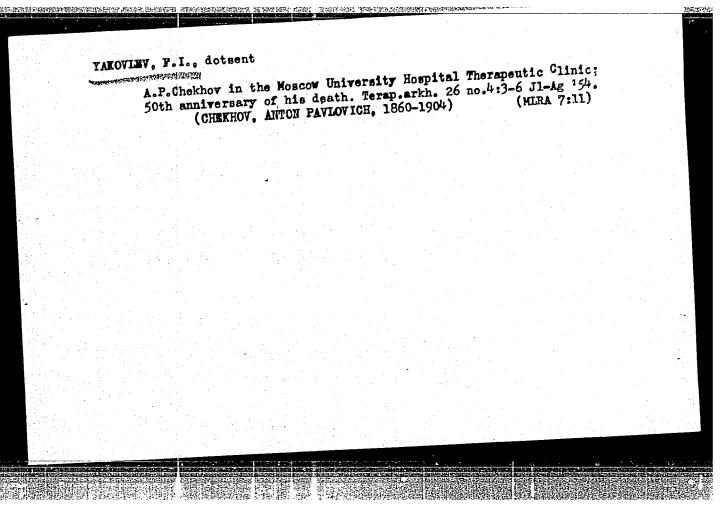
1. Glavnyy zootekhnik Leningradskogo oblastnogo upravleniya
sel'skogo khozyaystva (for Yakovlev)

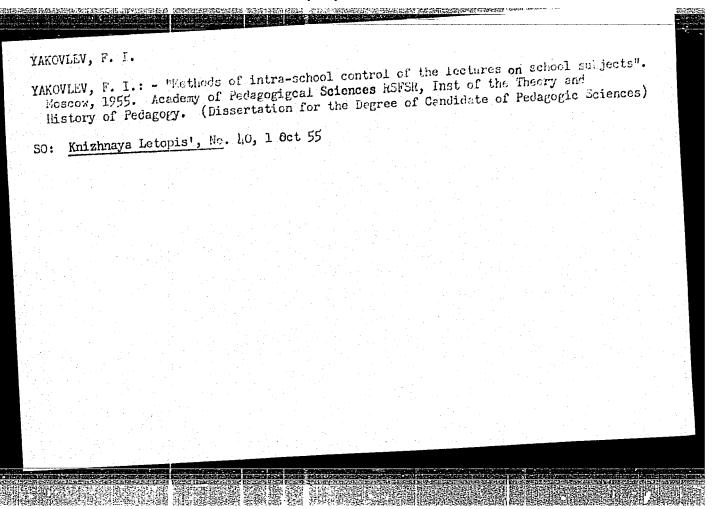
(leningrad Province--Stock and stockbreeding)

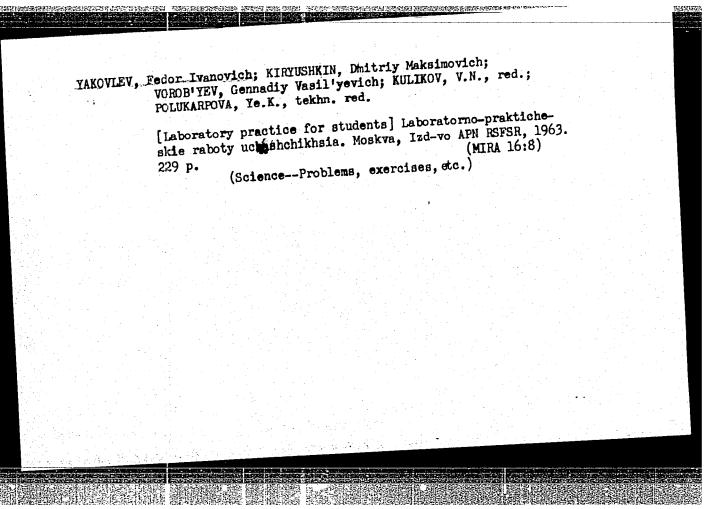
DOLGOBORODOV, I.V., zasluzhennyy zootekhnik RSFSR; ZIMINA, K.I.;
PISKAREV, A.G.; YAKOVLEV, F.A.; BOLOGOV, G.N., red.; BARANOVA,
L.G., tekhn.red.

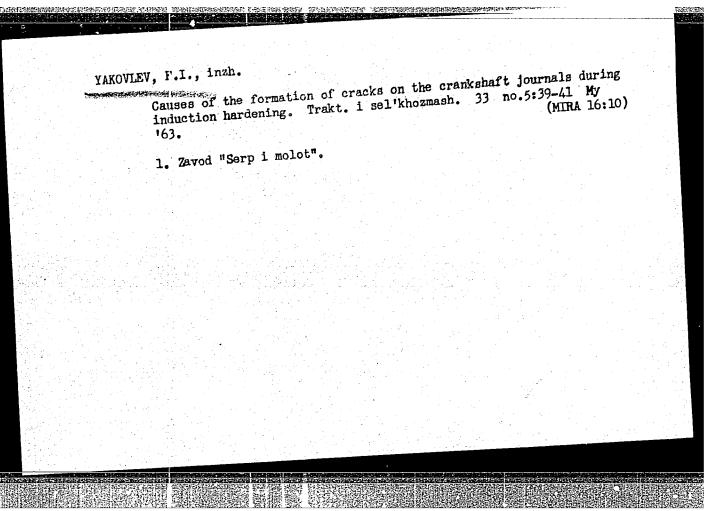
[Brief manual on dairy cattle raising] Kratkii spravochnik po molochnomu zhivotnovodstvu. Leningrad, Gos.izd-vo sel'khoz. lit-ry, 1960. 295 p. (MIRA 14:2) (Dairy cattle)

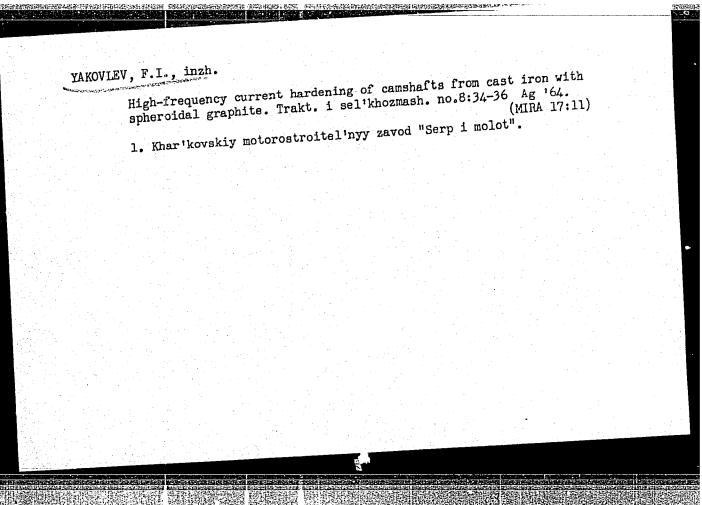


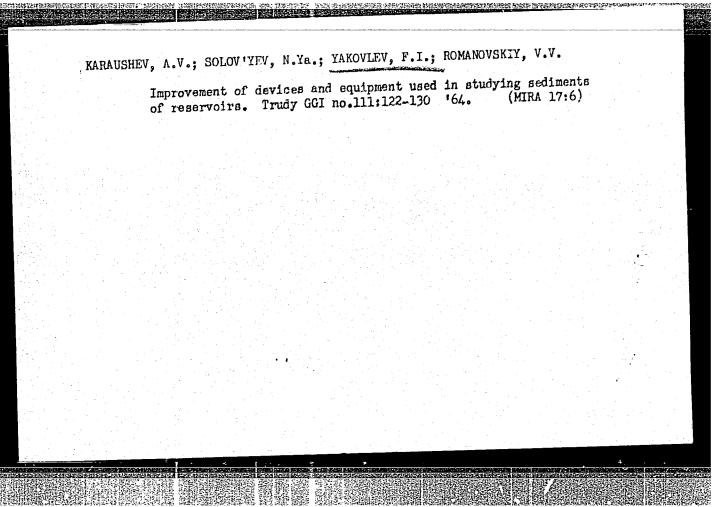




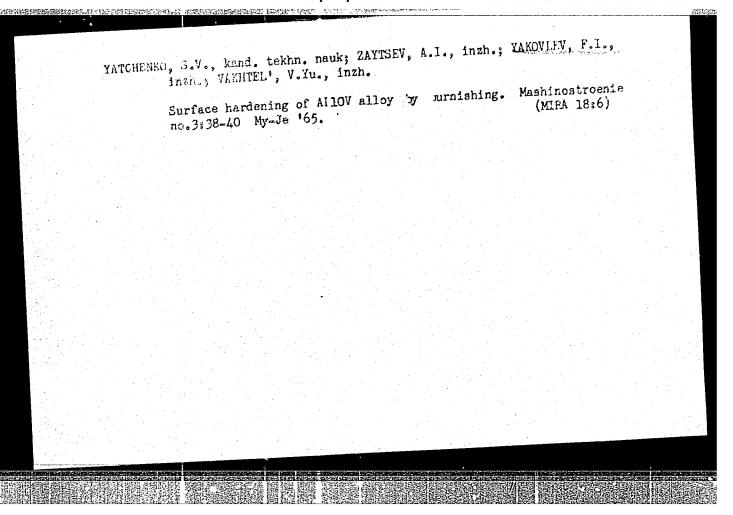




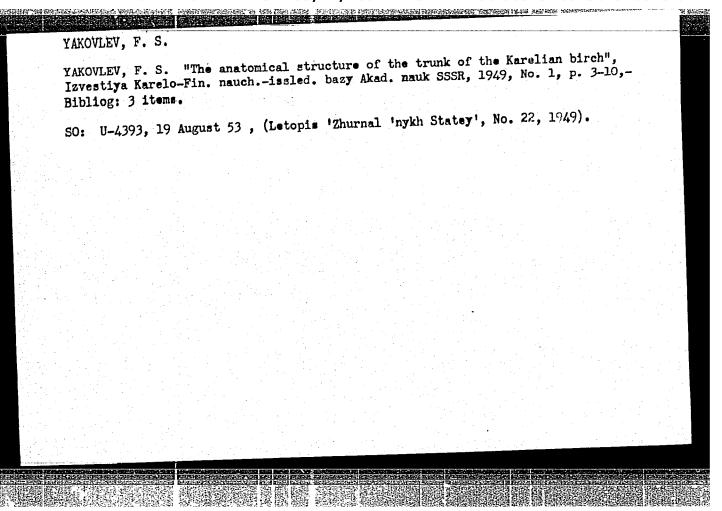




Garrecting casting defects in the crankcase block of the SAD diesel. Lit.preizv. no.10:37-38 0 '64. (MIRA 18:4)



YAKOVLEY, F.P.
The Trade Union Committee attracts workers to take part in the industrial administration. Neftianik 5 no.9:25 S '60. (MIRA 13:9)
1. Inspektor Tatarskogo obkoma profsoyuza rabochikh neftyanoy
i khimicheskoy promyshlennosti. (Petroleum industry)



KOLPIKOV, M.V., doktor biologicheskikh nauk, otvetstvennyy redaktor;
KOMSHILOV, M.F., kandidat tekhnicheskikh nauk, redaktor;
TAKOVLEV, F.S., kandidat biologicheskikh nauk, redaktor;
KISHCHEMO, T.I., kandidat sel'skokhosyaystvennykh nauk,
redaktor; SHIFEROVICH, V.Ta., kandidat biologicheskikh
nauk, redaktor; TVERITINOVA, K.S. tekhnicheskiy redaktor.

[Collected articles on investigation results concerning
forestry and lumbering in the taiga sone of the U.S.S.A.]
Sbornik statel pe resul'tatam issledovanii v oblasti lesnogo
khosiaistva i lesnoi promyshlennosti v taeshnoi sone SSSR.
Meskva, 1957. 301 p.

1. Akademifa nauk SSSR.Karel'skiy filial. Petrosavodsk.

(Forestä and forestry)

S.

USSR / Forestry. Biology and Typology of the Forest. K-1

Abs Jour: Ref Zhur-Biol., No 6, 1958, 24856.

: Yakovlyev, F. C. Author

: Not given. Inst

: Some Results and Problems of Studies of the For-Title

ests of the Karelian ASSR.

Orig Pub: Sb. statei po rezultatami issled. v obl. lesn. kh-

va i lesn. prom-sti v taezhn. zone SSR. M. - L.,

AN SSR, 1957, 29-35.

Abstract: The general condition of scientific investigations is briefly described. As a result of the study, general notions of the types of forests of Karelia are given. The division of the forests of the Western regions is into two sub-zones - the middle and the northern. The latter is divided into two zones - the northern and the southern. The southern one

Card 1/2

14

USSR / Forestry. Biology and Typology of the Forest.

Abs Jour: Ref Zhur-Biol., No 6, 1958, 24856.

Abstract: is notable for the predominance of pine forests.

The types of forests fall into 3 economic categories: the types with forest of industrial signi-

ficance, the types with protective and water-protective significance, and types with the transfor-

K-1

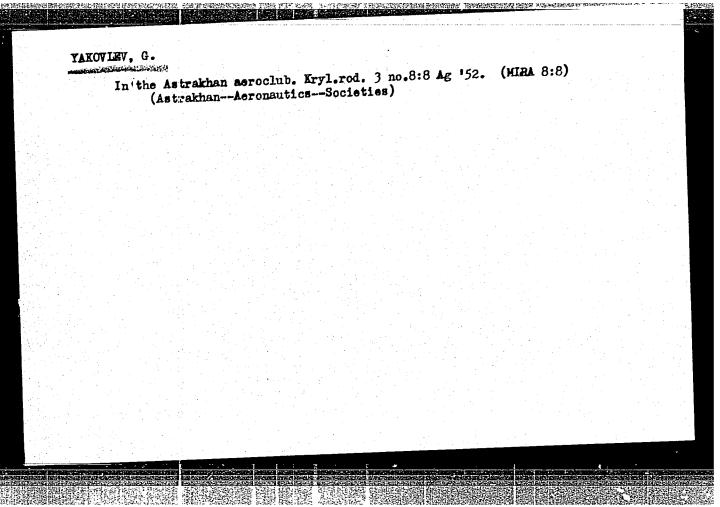
mation of territory in agricultural lands.

Card 2/2

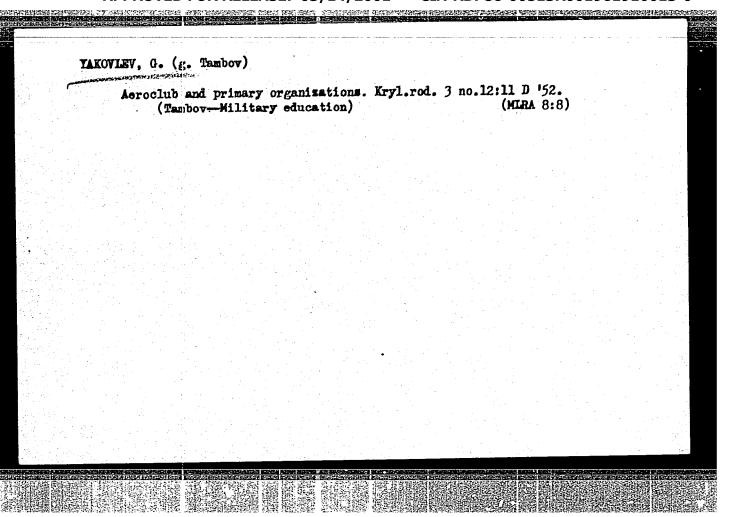
YAKOVLEV, F.S.; VORONOVA, V.S.; VILIKAYNEN, M.I., kand. biol. nauk, nacunyy red.; PANKRASHOV, A.P., red.; POD"EL'SKAYA, K.M., tekhn. red.

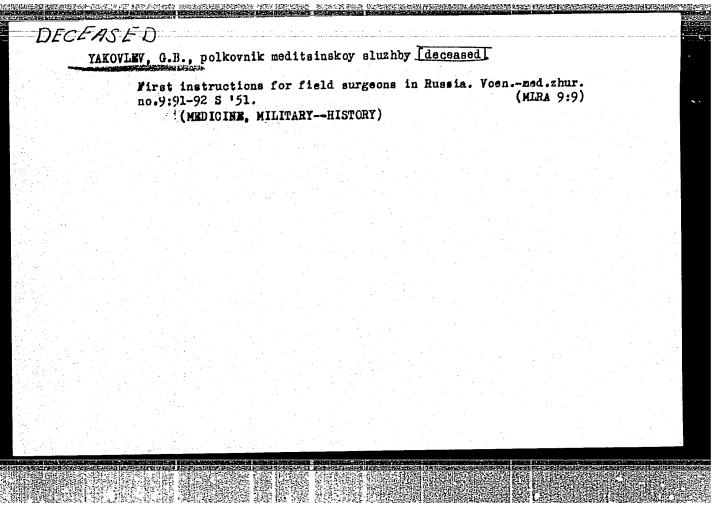
[Forest types in Karelia and their natural zoning] Tipy lesov Karelii i ikh prirodnoe raionirovanie. Petrozavodek, Gos. izdvo Kareli ekoi ASSR, 1959. 189 p. (MIRA 15:4)

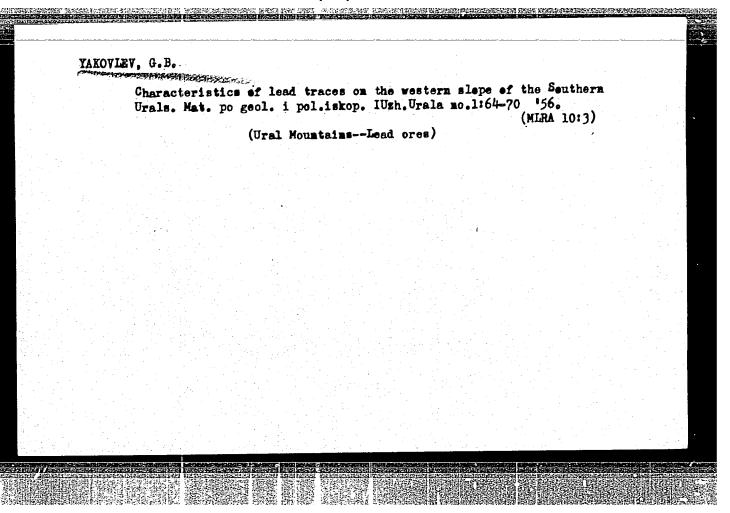
(Karelia--Forests and forestry)



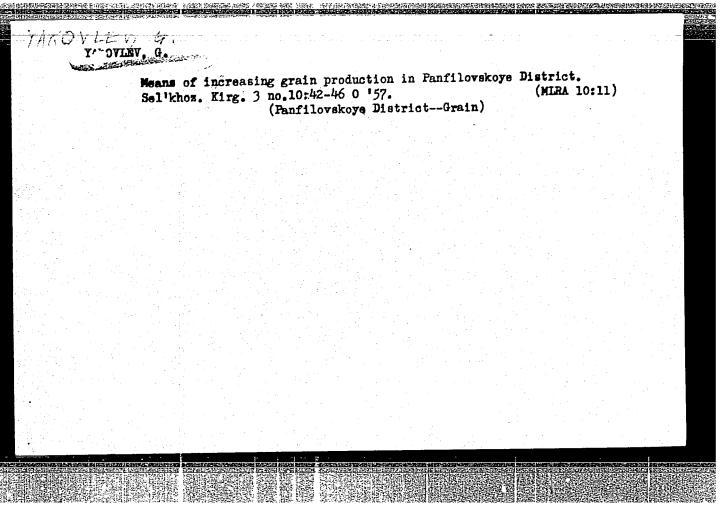
APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001961910013-0"

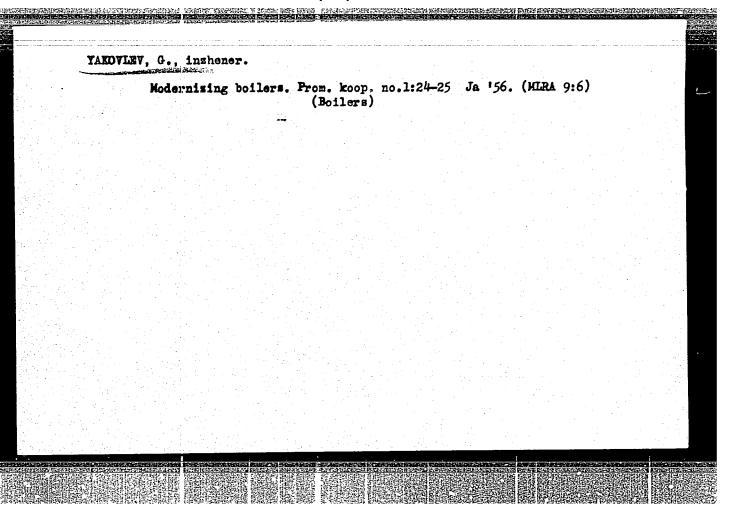






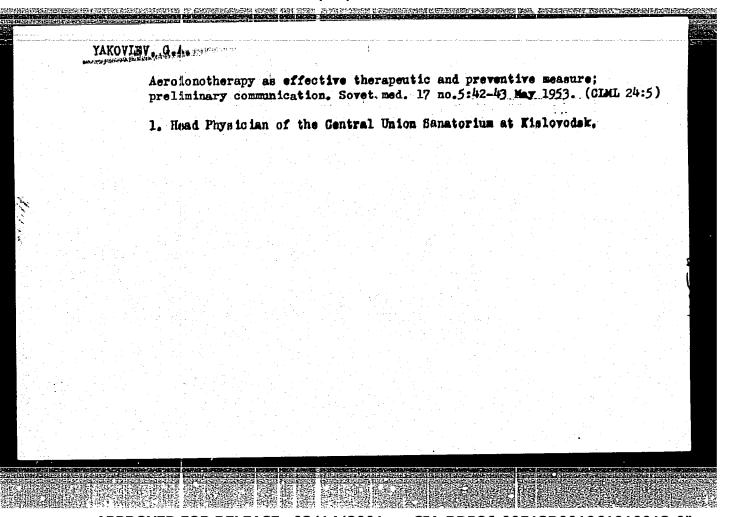
YAKOVLEV. G.D., kand.tekhn.nauk
Operational conditions of booms installed in the headrace of dams in mountain rivers. Sbor. nauch. trud. po lesospl. no.2: 159-170 '57. (MIRA 11:7) (Hydraulic engineering) (LumberTransportation)

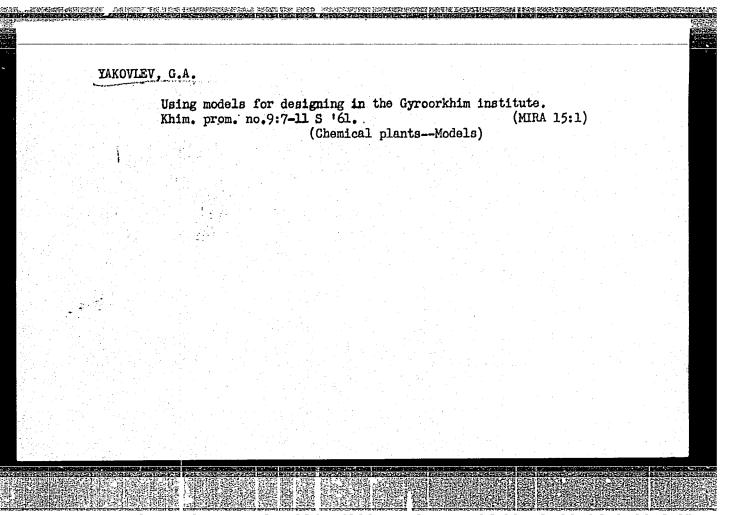




- 1. YAKOVLEV, G. A.
- 2. USSR (600)
- 4. Marking Devicin
- 7. Universal graduating pattern. Stan i instr No. 1, 1953

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.





YAKOVLEV, G.A. (Stalino) Therapeutic and preventive care of workers in a metallurgical plant. Sov. zdrav. 19 no.9132-37 '60.7' (MIRA 13:11) 1. Iz Mediko-sanitarnoy chasti zavoda imeni I.V.Stalina (glavnyy vrach A.I.Solomakha), Stalino. (STALINO..MEDICINE, INDUSTRIAL)